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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEVEN BRANIGAN and WILLIAM ROBERTS CHESWICK

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Appeal 2008-005518  
Application 09/755,470  
Technology Center 2400

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Decided: November 13, 2009

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Before JEAN R. HOMERE, JAY P. LUCAS, and STEPHEN C. SIU,  
*Administrative Patent Judges.*

SIU, *Administrative Patent Judge.*

DECISION ON APPEAL

### STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-15. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

#### *The Invention*

The disclosed invention relates generally to authenticating users in a wireless network for connection to a wired network. (Spec. 1).

Independent claim 1 is illustrative:

1. A wired network for providing secure, authenticated access to wireless network clients, comprising:
  - a server connected to a wireless network access point, and having access to the wired network, the server being operative to perform authentication for a wireless client establishing a connection to the server through the wireless network access point, the server performing authentication by examining authentication information transmitted from the client to the server and determining whether or not the authentication information identifies the wireless network client as authorized to gain access to the wired network, the server being operative to establish a connection session upon authentication of a client, the server being also operative to provide the client with a wired network address valid for the connection session upon authentication of the client, the server being further operative to encrypt communications with the wireless network access point, the server being further operative to provide a cryptographic key to the client to be used for encrypted communication with the wired network and valid for the connection session, upon authentication of the client; and
  - a user database accessible to the server for use in validating wireless clients.

*The References*

The Examiner relies upon the following references as evidence in support of the rejections:

Massarani	US 6,393,484 B1	May 21, 2002 (filed Apr. 12, 1999)
Lewis	US 6,526,506 B1	Feb. 25, 2003 (filed Feb. 25, 1999)
Redlich	US 6,591,306 B1	Jul. 08, 2003 (filed Jul. 21, 1999)
Bhagwat	US 6,651,105 B1	Nov. 18, 2003 (filed Nov. 12, 1999)
Schuster	US 6,857,072 B1	Feb. 15, 2005 (filed Sep. 27, 1999)

*The Rejections*

1. The Examiner rejects claims 1 and 7 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Massarani and Lewis.
2. The Examiner rejects claims 2-5 and 8-13 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Massarani, Lewis, and Bhagwat.
3. The Examiner rejects claim 6 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Massarani, Lewis, Bhagwat, and Redlich.
4. The Examiner rejects claims 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Massarani, Lewis, Bhagwat, and Schuster.

### ISSUE 1

Appellants assert that Massarani fails to disclose or suggest “‘a server connected to a wireless network access point, and having access to the wired network’” because, according to Appellants, the “end user devices . . . are connected directly to the network 14 [rather than via a network access point]” (App. Br. 9).

Did Appellants demonstrate that the Examiner erred in finding that Massarani discloses or suggests a server connected to a wireless network access point and having access to a wired network?

### ISSUE 2

Appellants assert that Massarani fails to disclose or suggest “that the server provides ‘the client with a wired network address valid for the connection session.’” (App. Br. 10).

Did Appellants demonstrate that the Examiner erred in finding that Massarani discloses or suggests a server providing a client with a wired network address valid for a connection session?

### ISSUE 3

Appellants assert that it would not have been obvious to one of ordinary skill in the art to have combined the Massarani and Lewis references because, according to Appellants, “Lewis . . . effectively teaches away from the present claims.” (App. Br. 11). Appellants also argue that “it is only in hindsight, after seeing the claimed invention, that the Examiner

could combine the references [Massarani and Lewis] as the Examiner has done” (App. Br. 15) and that “the Examiner does not appear to have considered ‘where the references [Massarani and Lewis] diverge and teach away from the claimed invention’ . . . [and has not] read the claims as a whole” (App. Br. 15).

Did Appellants demonstrate that the Examiner erred in finding that it would have been obvious to one of ordinary skill in the art to have combined the Massarani and Lewis references?

#### ISSUE 4

Appellants assert that “[i]t does not appear that any server of Massarani or Lewis operates [as a portal between the wireless network and a wired network]” (App. Br. 12).

Did Appellants demonstrate that the Examiner erred in finding that the combination of Massarani and Lewis discloses or suggests a server operating as a portal between a wireless network and a wired network?

#### ISSUE 5

Appellants assert that Bhagwat fails to disclose or suggest “‘providing access to wired network resources in response to requests by the wireless-client’” (App. Br. 12).

Did Appellants demonstrate that the Examiner erred in finding that the combination of Massarani, Lewis and Bhagwat discloses or suggests

providing access to a wired network in response to a request by a wireless client?

## ISSUE 6

Appellants assert that Massarani fails to disclose or suggest a “network hub” (App. Br. 13).

Did Appellants demonstrate that the Examiner erred in finding that the combination of Massarani, Lewis and Bhagwat discloses or suggests a network hub?

## FINDINGS OF FACT

The following Findings of Facts (FF) are shown by a preponderance of the evidence.

1. Massarani discloses “a plurality of mobile/dynamic end user devices . . . connected to a shared-medium network 14” (col. 4, ll. 32-35).
2. Massarani discloses that “devices . . . are connected to the network . . . through a layered communication system” (col. 4, ll. 36-38) such that “devices are connected to the network at access ports 20<sup>1</sup>, . . . 20<sup>N</sup>” (col. 4, ll. 39-40) and that “[e]ach access port . . . is coupled to an edge router/switch 22<sup>1</sup> . . . [which is] coupled through a network link . . . to a Dynamic Host Control Protocol (DHCP) server” (col. 4, ll. 54-65).
3. Massarani discloses that the “DHCP server assigns a new address and sends it to the client together with the address of a router on the

same network as the DHCP server and the subnet match for that network.” (Col. 5, ll. 2-5).

4. Massarani discloses that the DHCP server “selects an appropriate IP address and associated parameters to be returned to the requesting end user device.” (Col. 6, ll. 51-53).
5. Massarani discloses “the end user device . . . will initiate a DHCP exchange in an attempt to obtain a valid IP address and other associated parameters.” (Col. 6, ll. 26-28).

### PRINCIPLES OF LAW

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

### ANALYSIS

#### Issue 1

Based on Appellants’ arguments in the Appeal Brief, we will decide the appeal of the rejections of claims 1-6 with respect to issue 1 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).



Appellants argue that Massarani fails to disclose or suggest a server connected to an access point. However, Massarani discloses a server, such as a DHCP Server (Fig. 1), that connects to router/switches (e.g., Core router/Switch and/or Edge Router/Switch) through which wireless devices access a wired network (FF 1-2). Appellants do not indicate an explicit definition of the term “network access point” in the Specification. Thus, we construe the term “network access point” broadly but reasonably to include any device or entity through which access to a network may be achieved. In Massarani, mobile devices gain access to a network via routers/switches and ports, which therefore constitute “network access points.” In addition, the server in Massarani has “access” to the wired network (i.e., network 14 – Fig. 1, FF 1). We therefore are not persuaded by Appellants’ argument.

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s rejection of claim 1, or of claims 2-6, which fall therewith with respect to issue 1.

## Issue 2

Based on Appellants’ arguments in the Appeal Brief, we will decide the appeal of the rejections of claims 1-6 with respect to issue 2 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that Massarani fails to disclose or suggest providing a client with a network address for a connection session. However, as set forth above, Massarani discloses a server providing an IP address and

parameters for a session that are returned to a requesting end user device (FF 3-4). We find no distinction between the server of Massarani providing an address (and parameters) for a session to a requesting user device and the claimed feature of a server providing a network address to a client for a session. Nor have Appellants indicated any specific differences between the seemingly identical concepts.

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's rejection of claim 1, or of claims 2-6, which fall therewith with respect to issue 2.

### Issue 3

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal of the rejections of claims 1-15 with respect to issue 3 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants assert that it would not have been obvious to one of ordinary skill in the art to have combined the Massarani and Lewis references. We disagree.

Massarani discloses "a plurality of mobile/dynamic end user devices" (co. 4, l. 32) in a network "which prevents unauthorized devices and users from obtaining network services" (col. 4, ll. 35-36). Similarly, Lewis also discloses "a wireless network" (col. 2, ll. 46-47) that maintains data security use "[a] multi-level encryption scheme" (col. 2, l. 46). Hence, Massarani demonstrates that it was known to one of ordinary skill in the art to provide

and utilize a network of mobile devices and to ensure data security (by preventing unauthorized devices from accessing the network) and Lewis demonstrates that it would known in the art to ensure data security in a wireless network by encrypting data. Combining the known element of Massarani (i.e., secure wireless network) with the known element of Lewis (i.e., securing a wireless network by encrypting data) would have resulted in no more than the predictable use of prior-art elements according to their established functions (i.e., secure data access in a wireless network). “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co.*, 550 U.S. at 417 (citing *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

Appellants argue that “Lewis . . . effectively teaches away from the present claims” because “Lewis provides no basis for modifying Massarani in a manner so as to meet the present claims” (App. Br. 11).

“‘A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.’” *Para-Ordnance Mfg., Inc. v. SGS Importers Int’l, Inc.*, 73 F.3d 1085, 1090 (Fed. Cir. 1995) (quoting *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)).

Appellants fail to provide arguments demonstrating that one of ordinary skill in the art, upon examining the Lewis reference, would be

discouraged from encrypting data in Massarani. For example, Appellants have not demonstrated that Lewis discourages or provides any warning to one of ordinary skill in the art not to encrypt data to achieve data security in a wireless network. On the contrary, as set forth above, Lewis appears to explicitly disclose encrypting data in a wireless network. We are therefore not persuaded that Lewis “teaches away.”

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s rejection of claim 1, or of claims 2-15, which fall therewith with respect to issue 3.

#### Issue 4

Based on Appellants’ arguments in the Appeal Brief, we will decide the appeal of the rejections of claims 7-9 with respect to issue 4 on the basis of claim 7 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that the combination of Massarani and Lewis fails to disclose or suggest a server operating as a portal between a wireless and a wired network, however, Appellants do not indicate an explicit definition of the term “portal” in the Specification. Under a broad but reasonable interpretation, we find that a “portal” includes any device or entity that provides entry. Thus, in the present case, a portal between networks includes any entity that provides entry from one network to the other. Since Massarani discloses a server in a network for “controlling access to shared-medium public and semi-public networks” (col. 3, ll. 11-12), the server of

Massarani functions as a portal to the extent that the server controls entry of devices into the network. Thus, we find that Appellants have not demonstrated a distinction between the server of Massarani and the claimed feature of a server operating as a portal between networks.

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's rejection of claim 7, or of claims 8 and 9, which fall therewith with respect to issue 4.

#### Issue 5

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal of the rejections of claims 10-15 with respect to issue 5 on the basis of claim 10 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that the combination of Massarani, Lewis, and Bhagwat fails to disclose or suggest providing access to a network in response to requests from a client. However, while Bhagwat discloses re-establishing a connection between a mobile device and a peer when the host moves (i.e., providing access to a network), Massarani also discloses a user device initiating an exchange with the server to gain access to the network (i.e., sending a request) (FF 5). Appellants have provided no arguments demonstrating a distinction between a user device initiating an exchange with a server to gain access to a network (Massarani and Bhagwat) and the claimed feature of providing access to a network in response to a request from a user device.

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's rejection of claim 10, or of claims 11-15, which fall therewith with respect to issue 5.

#### Issue 6

Appellants argue that Massarani fails to disclose or suggest the network including a network hub. Using a broad but reasonable interpretation of the term "network hub" in the absence of an explicit definition of the term in the Specification, we find that a network hub includes any entity that serves as a central connection point for devices. Massarani discloses such a "network hub." For example, Massarani discloses the network serving as a central connection point for end user devices (e.g., multiple mobile/dynamic end-user devices – Fig. 1). We find no discernible difference, and Appellants have failed to indicate a distinction, between the network connecting multiple end user devices in a "hub" configuration and the claimed "network hub."

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner's rejection of claim 2 with respect to issue 6.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have failed to demonstrate that the Examiner erred in:

1. finding that Massarani discloses or suggests a server connected to a wireless network access point and having access to a wired network (issue #1),
2. finding that Massarani discloses or suggests a server providing a client with a wired network address valid for a connection session (issue #2),
3. finding that it would have been obvious to one of ordinary skill in the art to have combined the Massarani and Lewis references (issue #3),
4. finding that the combination of Massarani and Lewis discloses or suggests a server operating as a portal between a wireless network and a wired network (issue #4),
5. finding that the combination of Massarani, Lewis and Bhagwat discloses or suggests providing access to a wired network in response to a request by a wireless client (issue #5), and
6. finding that the combination of Massarani, Lewis and Bhagwat discloses or suggests a network hub (issue #6).

### DECISION

We affirm the Examiner's decision rejecting claims 1-15 under 35 U.S.C. § 103.

Appeal 2008-005518  
Application 09/755,470

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

nhl

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